



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail  
Certified Mail Receipt No. 7000-0520-0025 3714 0219

April 28, 2008

Ms. Bobbi A. Becker  
Section Manager  
Environmental, Health and Safety  
The Metropolitan Water District of Southern California  
PO Box 54153  
Los Angeles, CA 90054-0153

**Re: April 16, 2008 Request for TSCA Risk-Based Disposal Approval Under 40 CFR 761.61(c) for Jensen Treatment Plant – EPA Conditional Approval for Basin 3**

Dear Ms. Becker:

The U.S. Environmental Protection Agency (EPA) has reviewed your April 16, 2008 application for a risk-based disposal of polychlorinated biphenyls (PCBs) under 40 CFR 761.61(c) of the Toxic Substances Control Act (TSCA) for the Joseph Jensen Water Treatment Plant (Jensen) of The Metropolitan Water District of Southern California (MWD). EPA is approving MWD's application with the conditions described in Enclosure 1 to this letter. This conditional approval is specific to Jensen Basin 3. This approval amends MWD's April 2008 application.

Among other things, the MWD's application addresses removal and disposal of PCB-containing caulk, decontamination and disposal of concrete impacted by PCBs in the caulk, and monitoring for PCBs in certain media (e.g., water basin) and materials (concrete) to verify the PCB cleanup. MWD proposed these activities for Jensen's water Basin 3.

The MWD may amend its April 16, 2008 application in the future to include Jensen Basins 1, 2, and 4 (constructed in the same time period as Jensen Basin 3). The conditions in this approval may be extended to these basins if MWD submits an amendment to its April 16, 2008 application and if the status of these basins is similar to that of Basin 3 (before remediation).

In summary the conditions of approval, which provide for a simplified cleanup approach, address the following:

- Removal of PCB-containing caulk followed by remediation of the concrete, standard wipe tests to verify concrete remediation, and encapsulation of concrete when necessary. Certain cleanup levels apply including the 22 mg/kg PCB risk-based level proposed by MWD and the wipe (hexane) standard of 10 ug/100 cm<sup>2</sup>.
- Disposal of PCB-containing caulk as PCB bulk product waste, and of certain media and materials as PCB remediation waste (e.g., basin sludge if PCB contaminated,

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spent abrasive media and contaminated concrete, personal protective equipment) in accordance with applicable TSCA regulations.

- Sampling and analysis plan and contingency plan submittals for EPA approval.
- Basin water testing for aroclors and PCB congeners.

In addition to the above, EPA understands that at some point in time the MWD would like to render the Jensen facility as "non PCB containing" under TSCA. This may not be possible within TSCA's regulatory framework. However, upon effective decontamination and achievement of the cleanup levels as verified by sampling of decontaminated concrete and continuous monitoring of basin water, the Jensen basins impacted by PCB-containing caulk shall be deemed decontaminated at the specified cleanup levels under TSCA. The rehabilitated Jensen basins may also be deemed acceptable for unrestricted handling as long as the PCB risk based-level for the water at each of Basins 1,2,3, and 4 is continuously maintained for the long term before mixing water from any of these basins with other water.

We look forward to receiving the sampling and analysis plan as well as the contingency plan for Jensen Basin 3. Please call Arlene Kabei at 415.972.3312 or Steve Armann at 415.972.3352 if you have any questions concerning this conditional approval.

Sincerely,

Nancy Lindsay  
Acting Director  
Waste Management Division

Enclosure

Cc: John E. Clark (MWD)  
Arlene Kabei (USEPA R9)  
Steve Armann (USEPA R9)  
Carmen Santos (USEPA R9)

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U.S. EPA CONCURRENCES

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Enclosure 1  
April 28, 2008

**Jensen Sedimentation Basin 3**  
**Risk-Based PCB Disposal Application – USEPA Conditional Approval**

**Joseph Jensen Water Treatment Plant**  
**13100 Balboa Boulevard**  
**Granada Hills, CA 91344**

**A. Background and Introduction**

The U.S. Environmental Protection Agency (EPA) is approving with conditions the Metropolitan Water District of Southern California (MWD) April 16, 2008 *"Request for TSCA Risk-Based Disposal Approval Removal of PCB-Containing Sealant in Contact with Drinking Water Joseph Jensen Water Treatment Plant"* in accordance with the Toxic Substances Control Act (TSCA) regulations at 40 CFR 761.61(c), risk-based disposal approval. This approval is for Sedimentation Basin 3 of the Joseph Jensen Water Treatment Plant (Jensen). This approval is effectively immediately upon EPA's approval of the Sampling and Analysis Plan required under approval condition d.7. The conditions of approval are described below under Section B (EPA's Conditions of Approval).

Certain concrete in Basin 3 became contaminated due to polychlorinated biphenyls (PCBs) migrating from PCB-containing caulk into the concrete. This risk-based approval authorizes and requires MWD to implement, among other things, the procedures specified in the conditions of approval to decontaminate, sample and test, and encapsulate (as necessary) concrete contaminated with PCBs, monitor Basin 3 for PCBs (e.g., water and sediment sampling); and in accordance with TSCA regulations, dispose of PCB bulk product waste (i.e., PCB containing caulk) and PCB remediation waste (e.g., contaminated concrete, basin sediments or sludge). MWD shall remove PCB-containing caulk in accordance with its April 16, 2008 application. MWD has reported finding PCB-containing caulk at 7,700 mg/Kg PCBs (Aroclor 1248).

The MWD is authorized to encapsulate the PCB-impacted concrete in Basin 3 as necessary and when specified cleanup levels (PCB decontamination standard at 40 CFR 761.79(b)(4) and risk-based PCB limits) cannot be achieved despite best efforts to decontaminate the concrete.

Under the above cited regulations, the EPA Regional Administrator may approve a risk-based PCB waste cleanup methodology, including encapsulation, to allow for continued use of the basin if it is found that the cleanup method and continued use of the basin will not pose an unreasonable risk of injury to health or the environment. EPA has reviewed the results of past monitoring activities at Jensen. None of the analytical results provided by MWD for the Jensen combined plant effluent showed detection of PCBs at levels equal to or greater than the 0.1 ug/L laboratory reporting limit. The maximum contaminant level (MCL) that EPA and the State of California established for total PCBs in drinking water is 0.5 ug/L.

This approval does not relieve MWD from complying with all other applicable federal, state, and local regulations and permits. Departure from the approval conditions without prior written permission from EPA may result in the immediate suspension of this approval, the commencement of proceedings to revoke this approval, and/or and enforcement action. This approval does not preclude EPA from initiating an enforcement action, including seeking civil

penalties, for violations of the Federal PCB regulations under TSCA. EPA reserves the right to obtain split or duplicate samples upon request.

**B. EPA's Conditions of Approval, TSCA Risk-Based Disposal Approval for Jensen Basin 3**

The MWD April 16, 2008 application (Request for a TSCA Risk-Based Disposal Approval) is incorporated by reference into this approval. Section titles used below are the same as those in the MWD application. The conditions of approval are EPA's changes to the MWD application. The MWD shall satisfy the conditions in this Enclosure 1 and those in the MWD application for EPA to determine whether MWD has completed the 40 CFR 761.61(c) PCB cleanup and disposal. In case of conflict between Enclosure 1 and the MWD application, the conditions of approval take precedence.

**1. Project Description, Proposed Sealant Testing Protocol, Proposed Sealant Removal, and Proposed Confirmation Sampling Protocol**

- a. Remove all caulk within impacted basin and assume all caulk is PCB-containing caulk above 50 ppm. Dispose of caulk as PCB bulk product waste in accordance with 40 CFR 761.62 (also refer to 40 CFR 761.50). The MWD has identified US Ecology as the disposal facility for PCB bulk product waste resulting from the decontamination/cleanup of Basin 3. The disposal method, which is subject to approval in accordance with 761.61(a)(3)(i)(D), is approved via this conditions of approval.
- b. Sandblast/grind to remove sealant residue, contaminated concrete beneath sealant, and contaminated concrete within 2 to 3 inches from each edge of caulk/joint. Depending on the structural integrity of a joint, the MWD may decide to cut concrete within 2 to 3 inches of each edge of caulk/joint. The new concrete surface and the surface beneath the PCB-containing caulk shall be sandblast/grinded before filling with new concrete and non-PCB caulk.
- c. Test sandblasted/prepared concrete using Standard Wipe Test in 40 CFR 761.123 (hexane). The MWD shall also use the Standard Wipe Test to test the new concrete surfaces resulting from cutting concrete within 2 to 3 inches from caulk/joint (refer to [b.] above) before filling the area with new concrete and non-PCB caulk. The MWD shall propose the wipe test sampling strategy in the sampling plan (refer to Item [d.7] below.)
  1. Less than or equal to 10 ug PCB/100 cm<sup>2</sup>: Concrete decontamination deemed complete (consistent with regulations)
  2. Greater than 10 ug/100 cm<sup>2</sup>: Concrete shall be encapsulated and locations to be logged in accordance with MWD's application. The MWD will provide the register of locations where it found the PCBs in Basin 3 regardless of the options available below. OR:
    - i. Repeat b and c . . . , OR

- ii. Collect concrete chip samples and send to the laboratory for analysis:
  - A. If PCB analysis results are below 22 mg/kg: Risk-based decontamination or cleanup is complete.
  - B. If PCB analysis results are greater than or equal to 22 mg/kg: MWD shall encapsulate the concrete. . . OR
  - C. Repeat (b.) and (c.) . . .
- d. The MWD shall verify the effectiveness of the PCB cleanup through collection and analysis of valid, representative water and sediment samples from Basin 3 to be analyzed for PCBs (aroclor) and PCB congeners. MWD shall collect the water samples from the Basin 3 effluent before mixing with other water. Sediment samples shall be collected from Basin 3 before mixing with other sediments. Please include the water and sediment sampling strategy in the Sampling and Analysis Plan.
  - 1. The MWD shall collect valid and representative effluent water (before mixing with other water) and sediment samples from Basins 1, 2, and 4 to determine if PCBs are currently impacting water in these basins. The samples shall be analyzed for PCBs (aroclor) and PCB congeners. One sampling event shall be conducted unless elevated PCB levels are observed.
  - 2. The MWD shall collect valid and representative effluent water and sediment samples from Basin 3 upon start-up (within two or three days after filled) and thereafter, monthly, for the first year. On a quarterly basis and in addition to PCBs aroclors, the MWD shall have the samples analyzed for PCB congeners. If analysis results show no detections of PCB congeners during the first year, the MWD shall conduct quarterly PCB monitoring for PCB aroclors only. EPA will reconsider the PCB monitoring frequency annually.
  - 3. If there is any detection of PCB's, MWD shall contact EPA within 3 days, implement applicable parts of the contingency plan, and provide the annual report as specified in the application.
  - 4. Where PCB-containing caulk has been identified, but the basin remains in production/operational, water sampling in Item (d.2) shall be instituted. (This applies to Basins 1, 2, and 4), including detectable results from sampling in (d.1).
  - 5. A limited risk analysis that addresses PCB congeners will be conducted using data from the first round of samples described in Item (d.1) and the first quarterly sampling described in Item (d.2).
  - 6. The MWD shall develop a contingency plan in the event that PCBs are detected in the basin water. At a minimum, the contingency plan shall identify the actions that MWD will take when PCBs are detected in basin water above the MCL (0.5

ug/L), at half (0.25 ug/L) of the MCL, and below the laboratory reporting limit (0.1 ug/L PCB). If PCB levels in basin water are above the MCL, the MWD shall implement the necessary actions to prevent the water from coming into contact with other water at the Jensen facility. The MWD may consider taking the basin out of service and remedial actions as soon as possible to lower the PCB levels.

7. The MWD shall submit a formal Sampling and Analysis Plan for EPA review, including among other things the strategies to collect valid and representative wipe samples (using Standard Wipe test with hexane or methanol, as applicable), basin water and sediment samples, and concrete samples.
  - e. If necessary, concrete shall be encapsulated as described in the April 16, 2008 application and the effectiveness of encapsulation verified and monitored using the Standard Wipe Test (methanol) and visual inspections.
  - f. PCB remediation waste (e.g., sandblast grit, grinding, personal protective equipment, basin sediment or sludge, PCB contaminated water) shall be properly managed and disposed consistent with 40 CFR 761.61(a)(5) and 40 CFR 761.79(b) and (c). Please also refer to 40 CFR 761.50. Liquid waste from the PCB cleanup or decontamination activities shall be disposed of in accordance with 40 CFR 761.61(a)(5)(iv).
  - g. In the future, when MWD removes/replaces non-PCB (replacement caulk) caulk, MWD shall test the replacement caulk before disposal. Research studies suggest that PCBs may migrate from concrete to non-PCB caulk.
2. **Proposed Sealant Testing Protocol:** The size of Basin 3 as stated in MWD's application is 560 feet long by 160 feet wide. This correction applies to the entire application.
- The MWD requests in this section of the application that EPA allow a minimum of one year from the time the sealant is first discovered for remedial actions to begin. EPA believes this issue does not apply to Basin 3. EPA and MWD shall discuss this issue when MWD submits an amendment to the April 2008 application to address Basins 1, 2, and 4.
3. **Proposed Confirmation Sampling Protocol:** The standard for the wipe test is  $\leq 10$  ug/100 cm<sup>2</sup> and not  $< 10$  ppb/100 cm<sup>2</sup>. This correction applies to the entire application.
- For confirmation of PCB levels in concrete when collecting concrete samples (refer to Item 1.c.2.ii above), the requirements at 40 CFR 761.286(c) may apply and should be reviewed to determine the number of concrete samples that will be collected.
4. **Attachment B, Metropolitan Water District PCB-Containing Sealant Removal:** Attachment B of the MWD April 16, 2008 application is deleted from the application.
5. **Attachment C (4/2008) Metropolitan Water District of Southern California Standard PCB-Containing Sealant Removal Procedure:** Item 1 above revises the procedures described in Attachment C of the MWD April 16, 2008 application. In addition, a Safety

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Plan should be prepared that addresses precautions when preparing concrete surfaces contaminated with PCBs. Refer to 40 CFR 761.79 for additional information. Based on literature search, there are grinding tools that have built-in vacuum units. Workers may still be exposed to PCBs in the concrete when using these tools.